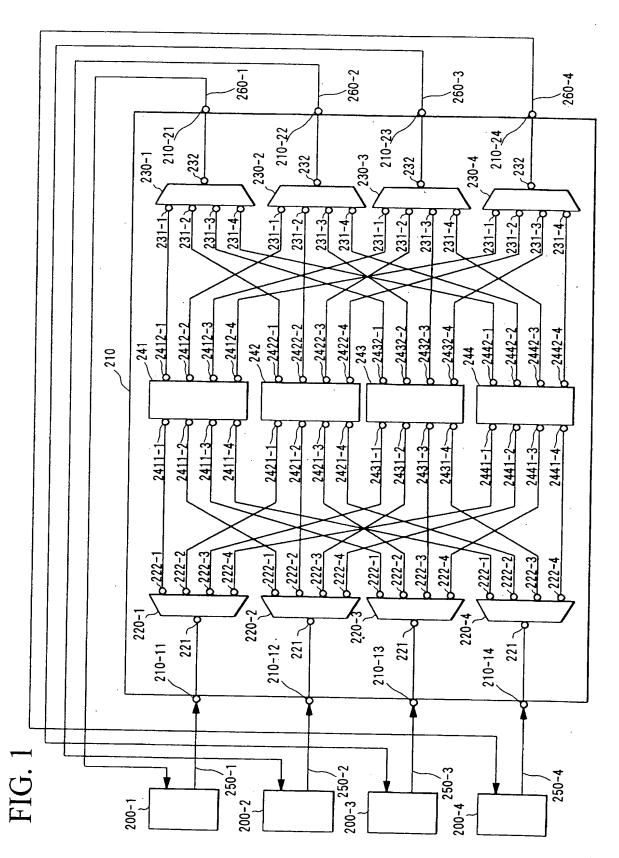
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

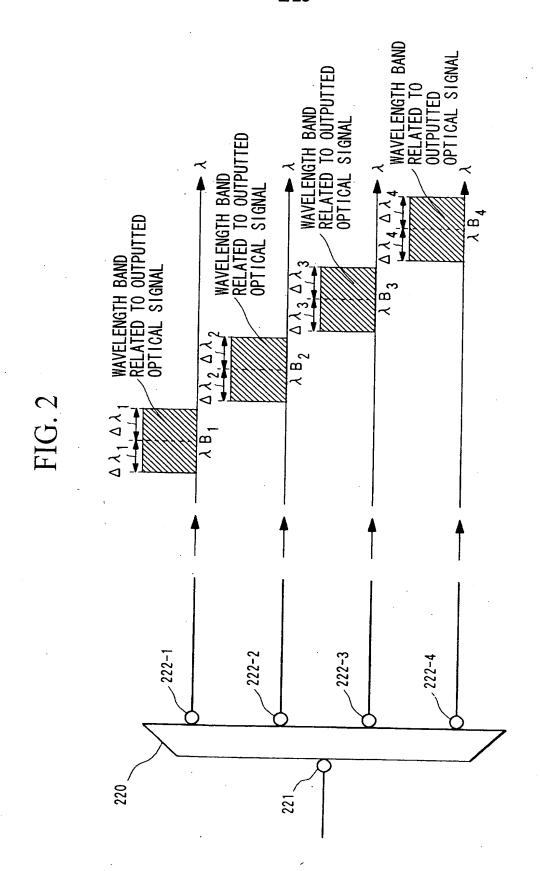
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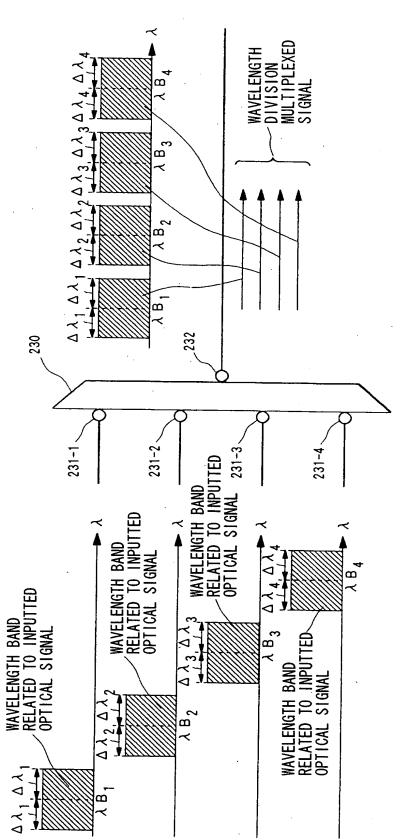
Title: OPTICAL COMMUNICATION NETWORK SYSTEM, WAVELENGTH-ROUTING DEVICE, COMMUNICATION NODE, AND OPTICAL PATH MANAGEMENT METHOD AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE Inventor(s): Osamu MORIWAKI, et al Atty. Ref.: 5259-046/NP

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FIG. 4

	FIRST OUTPUT PORT	SECOND OUTPUT PORT	THIRD OUTPUT PORT	FOURTH OUTPUT PORT	
FIRST INPUT PORT	λ11	λ12	λ13	λ14	
SECOND INPUT PORT	λ 12	λ13	λ14	λ11	
THIRD INPUT PORT	λ 13	λ14	λ11	λ 12	
FOURTH INPUT PORT	λ14	λ11	λ12	λ13	

FIG. 5

	FIRST OUTPUT PORT	SECOND OUTPUT PORT	THIRD OUTPUT PORT	FOURTH OUTPUT PORT	
FIRST INPUT PORT	λ21	λ 22	λ 23	λ 24	
SECOND INPUT PORT	λ 22	λ 23	λ 24	λ 21	
THIRD INPUT PORT	λ 23	λ 24	λ21	λ 22	
FOURTH INPUT PORT	λ 24	λ21	λ 22	λ 23	

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FIG. 6

	FIRST OUTPUT PORT		THIRD OUTPUT PORT	FOURTH OUTPUT PORT	
FIRST INPUT PORT	λ 31	λ 32	λ 33	λ 34	
SECOND INPUT PORT	λ 32	λ 33	λ 34	λ31	
THIRD INPUT PORT	λ 33	λ 34	λ31	λ 32	
FOURTH INPUT PORT	λ 34	λ31	λ 32	λ 33	

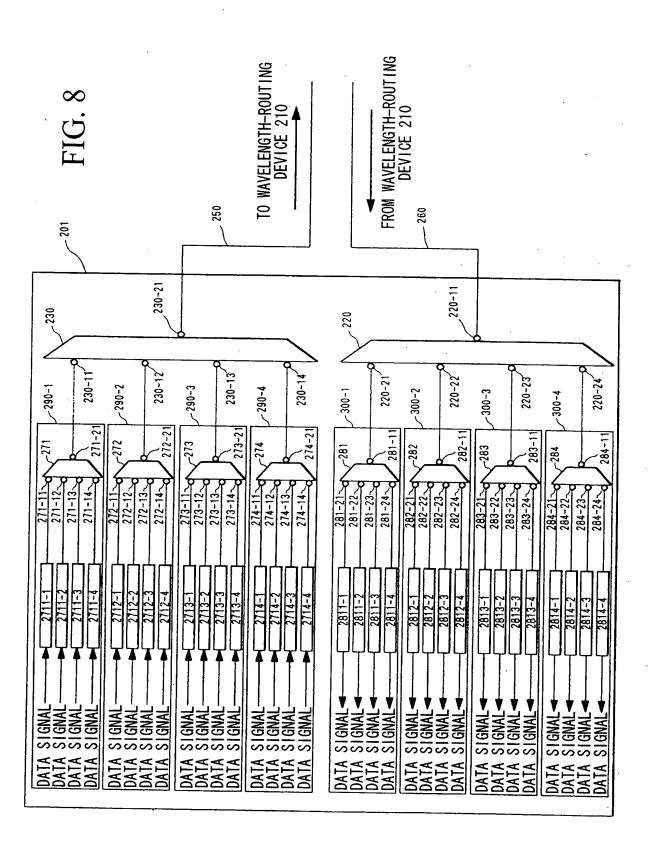
FIG. 7

	FIRST OUTPUT PORT	SECOND OUTPUT PORT	THIRD OUTPUT PORT	FOURTH OUTPUT PORT	
FIRST INPUT PORT	λ 41	λ 42	λ 43	λ 44	
SECOND INPUT PORT	λ 42	λ 43	λ 44	λ41	
THIRD INPUT PORT	λ 43	λ 44	λ41	λ 42	
FOURTH INPUT PORT	λ 44	λ 41	λ 42	λ 43	

AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE Inventor(s): Osamu MORIWAKI, et al

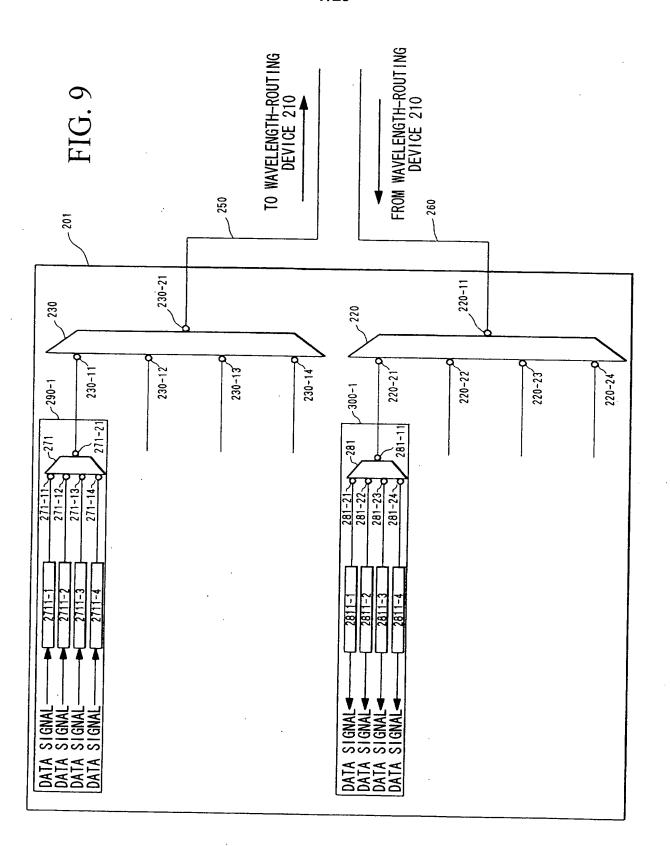
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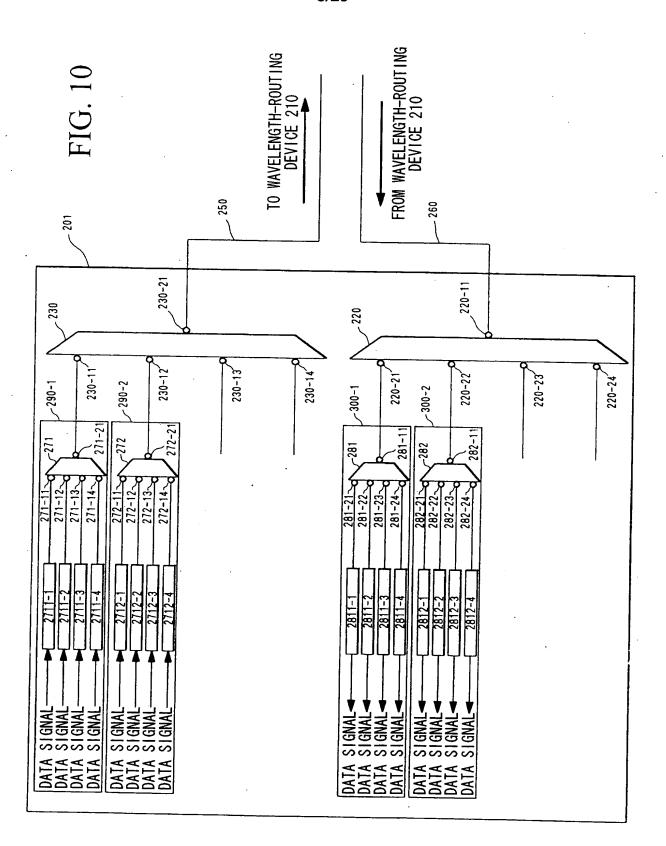
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

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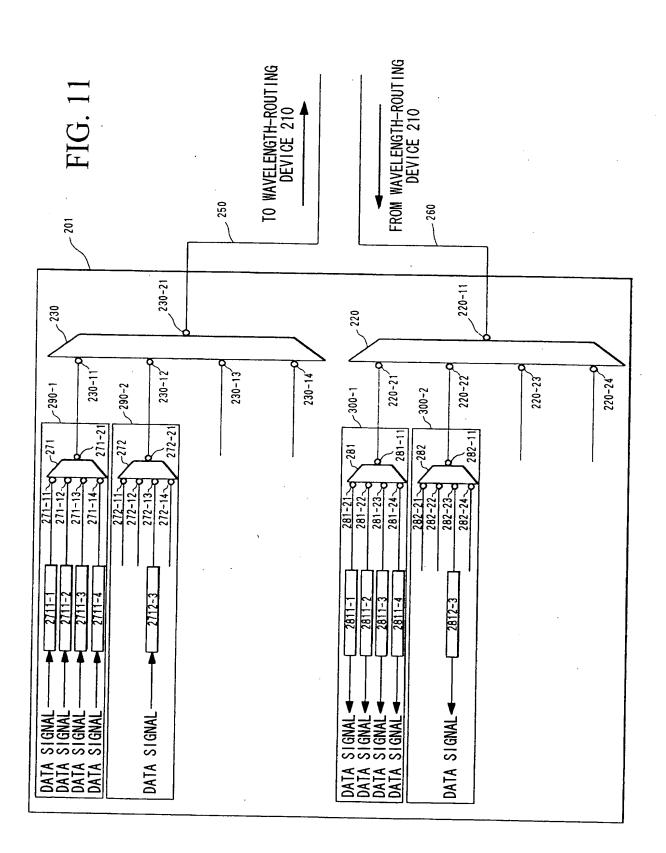
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

Inventor(s): Osamu MORIWAKI, et al Atty. Ref.: 5259-046/NP 10/522831

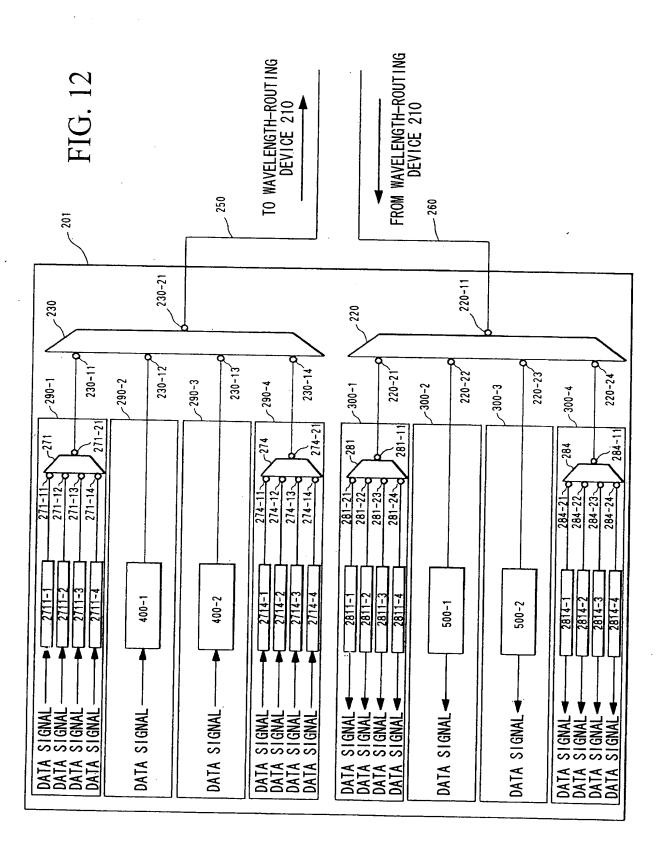


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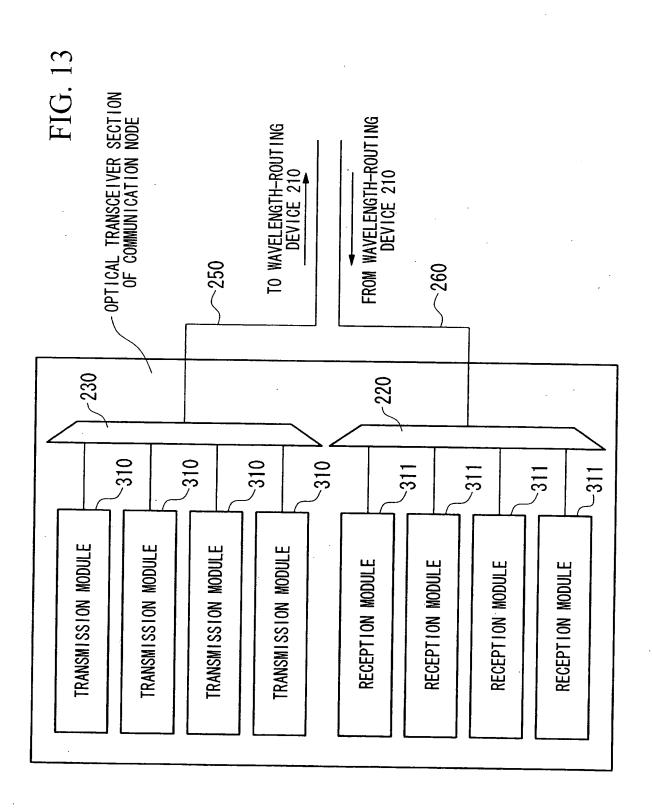


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AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

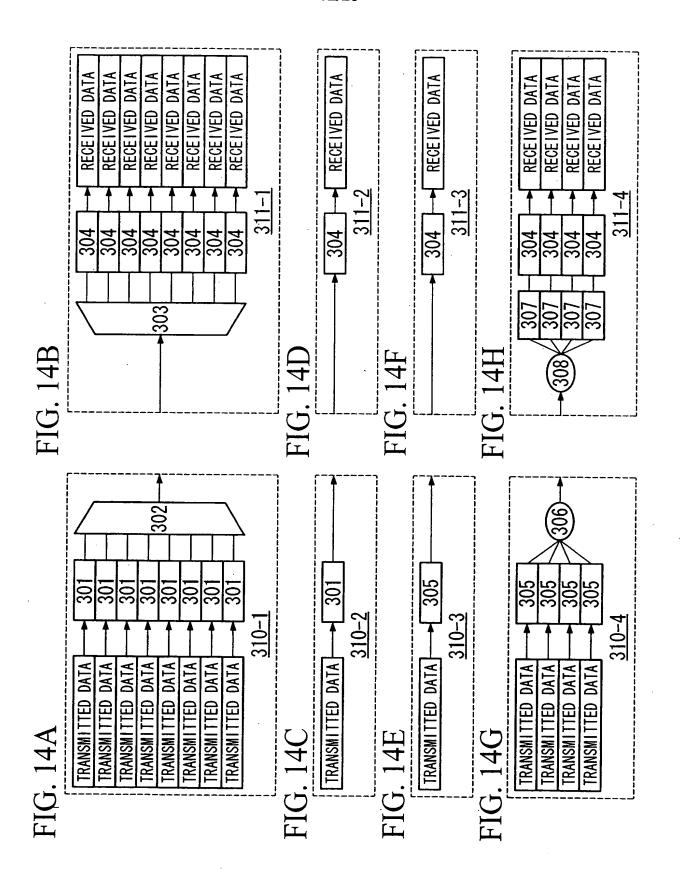
Inventor(s): Osamu MORIWAKI, et al Atty. Ref.: 5259-046/NP 10/522831



AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

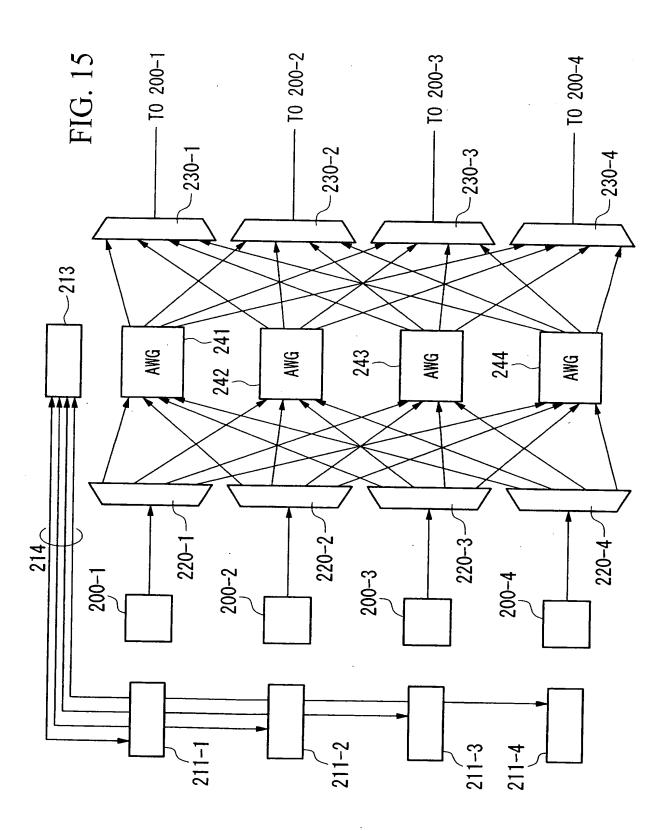
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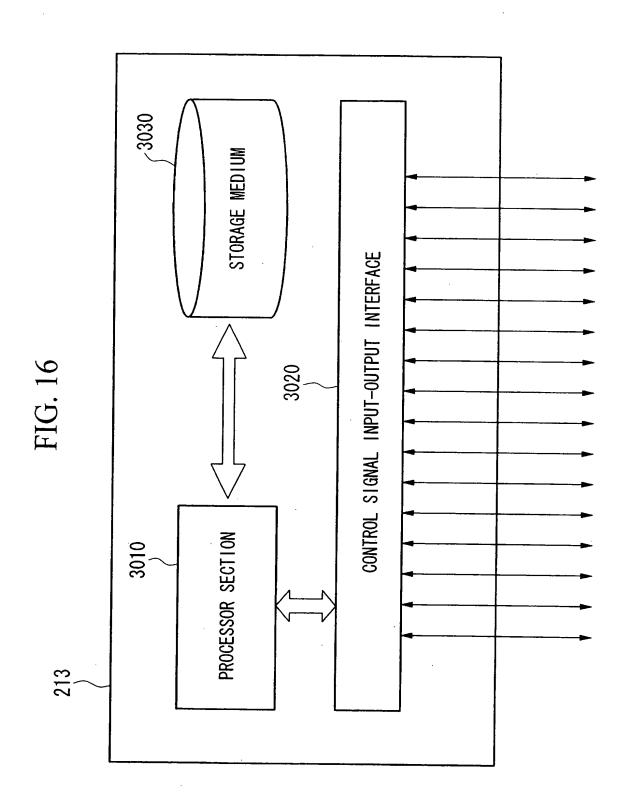
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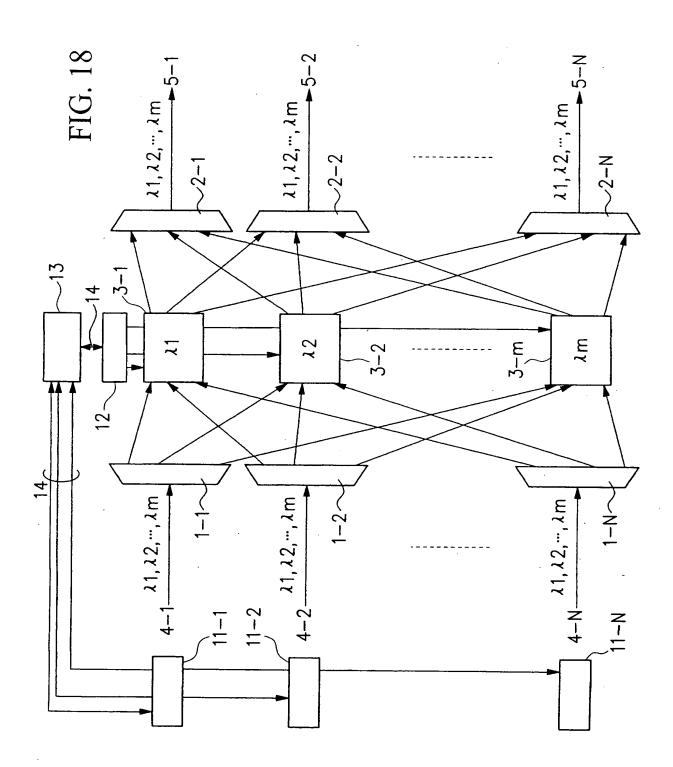
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE

Inventor(s): Osamu MORIWAKI, et al Atty. Ref.: 5259-046/NP

0 0 0 0 2 MODULE NUMBER イ ⊲ 2 +1 $\mathbf{\omega}$ T0 200-4 WAVELENGTH BAND OFF OFF ¥ T0 200-3 OFF OFF. OFF. 8 T0 200-2 ¥ OFF T0 200-1 OFF. ¥ FROM 200-3 FR0M 200-4

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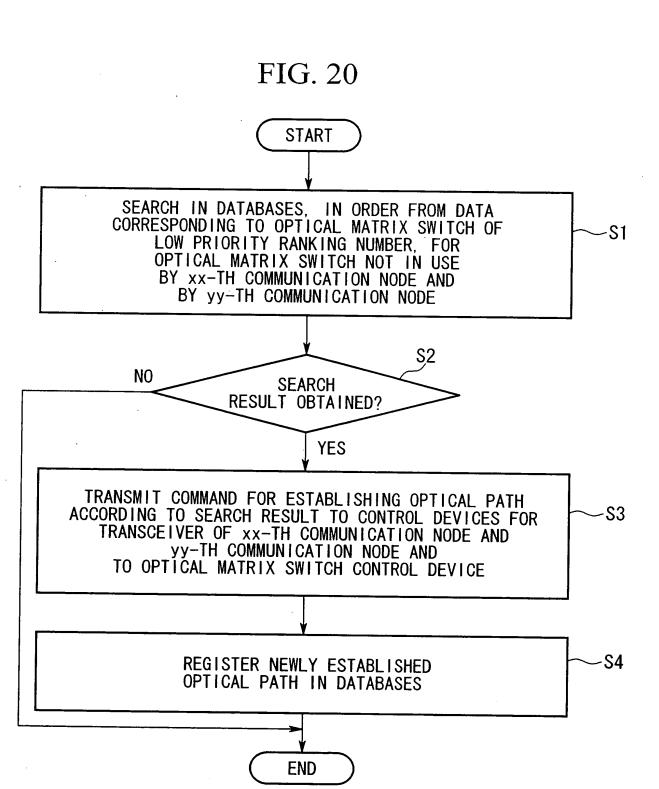
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE
Inventor(s): Osamu MORIWAKI, et al
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FIG. 19D	4	DESTINATION COMMUNICATION NODE OF OPTICAL PATH	3	0		0	0	0	0	0	GIVING NTH OF A4
FIG.	,	INPUT COMMUNICATION NODE	-	2	3	4	5	9	7	8	TABLE GIVING OPTICAL PATH OF
FIG. 19C	3	DESTINATION COMMUNICATION NODE OF OPTICAL PATH	0	8	0	0	0	0	0	2	GIVING TH OF A3
FIG.		INPUT COMMUNICATION NODE		2	3	4	5	9	7	8	TABLE GIVING OPTICAL PATH OF A3
FIG. 19B	2	DESTINATION COMMUNICATION NODE OF OPTICAL PATH	0	5	0	0	2	0	0	0	GIVING TH OF A2
FIG.		INPUT COMMUNICATION NODE	1	2	3	4	5	9	7	8	TABLE GIVING OPTICAL PATH OF 1/2
FIG. 19A		INPUT COMMUNICATION COMMUNICATION NODE OF OPTICAL PATH	3	0	-	0	0	0	0	0	GIVING NTH OF 21
FIG.		INPUT COMMUNICATION NODE	-	2	ဗ	4	5	9	7	8	TABLE GIVING OPTICAL PATH OF λ

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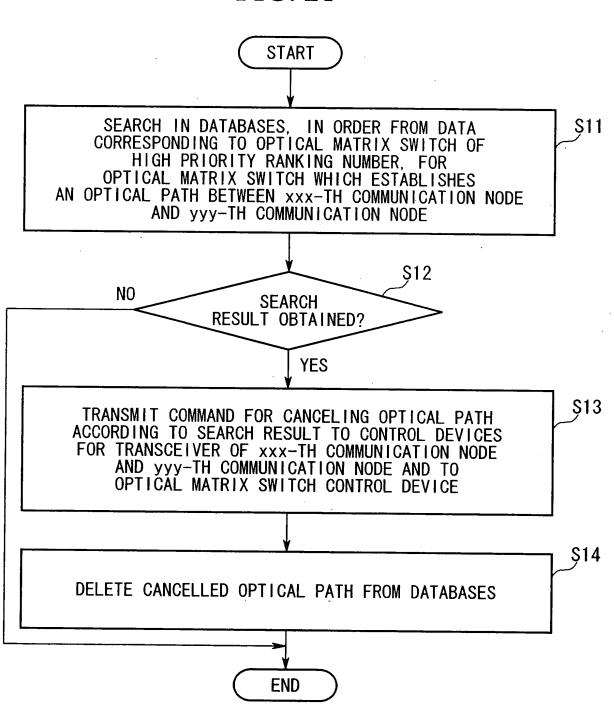


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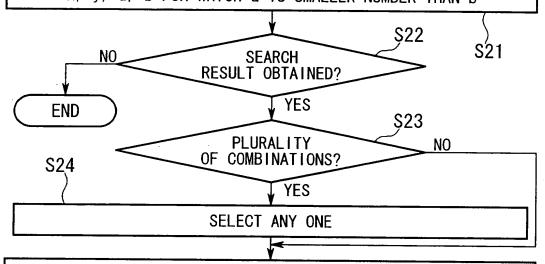
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FIG. 22

START

SEARCH IN DATABASES, IN ORDER DETERMINED IN ADVANCE, FOR ALL COMBINATIONS OF x AND y, NUMBER b OF HIGHEST PRIORITY RANKING ONE AMONG OPTICAL MATRIX SWITCHES WHICH CONNECT x-TH COMMUNICATION NODE AND y-TH COMMUNICATION NODE, AND NUMBER a OF LOWEST PRIORITY RANKING ONE AMONG OPTICAL MATRIX SWITCHES WHICH DO NOT USE x-TH COMMUNICATION NODE AND y-TH COMMUNICATION NODE, AND EXTRACT COMBINATIONS OF x, y, a, b FOR WHICH a IS SMALLER NUMBER THAN b



TRANSMIT COMMAND FOR NEWLY ESTABLISHING OPTICAL PATH
BETWEEN x-TH COMMUNICATION NODE AND y-TH
COMMUNICATION NODE VIA a-TH OPTICAL MATRIX SWITCH OF
SELECTED COMBINATION TO CONTROL DEVICES FOR TRANSCEIVER
OF x-TH COMMUNICATION NODE AND y-TH COMMUNICATION
NODE AND TO OPTICAL MATRIX SWITCH CONTROL DEVICE

S25

TRANSMIT COMMAND FOR CANCELING OPTICAL PATH
ESTABLISHED BETWEEN x-TH COMMUNICATION NODE AND y-TH
COMMUNICATION NODE VIA b-TH OPTICAL MATRIX SWITCH OF
SELECTED COMBINATION TO CONTROL DEVICES FOR TRANSCEIVER
OF x-TH COMMUNICATION NODE AND y-TH COMMUNICATION NODE
AND TO OPTICAL MATRIX SWITCH CONTROL DEVICE

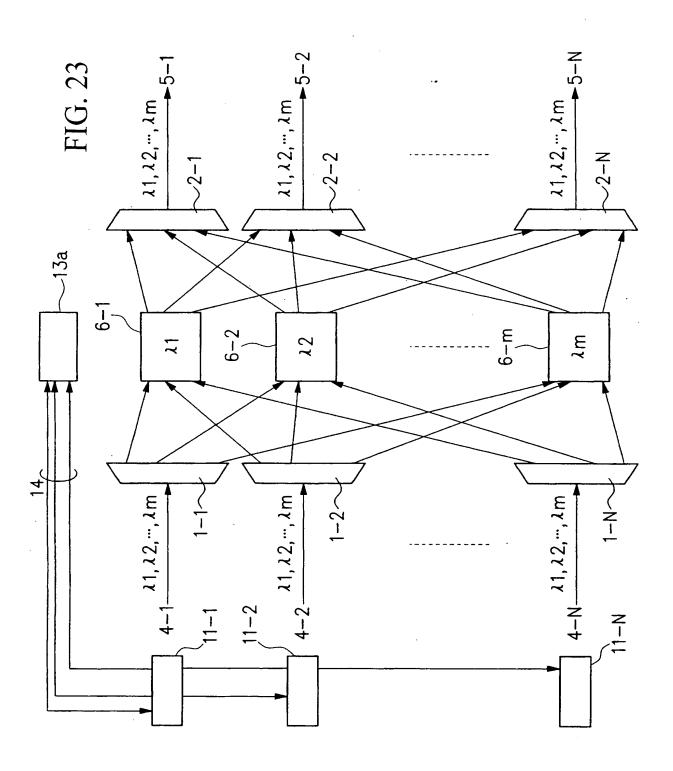
S2₆

REGISTER NEWLY ESTABLISHED OPTICAL PATH IN DATABASES, AND DELETE CANCELLED OPTICAL PATH FROM DATABASES

S27

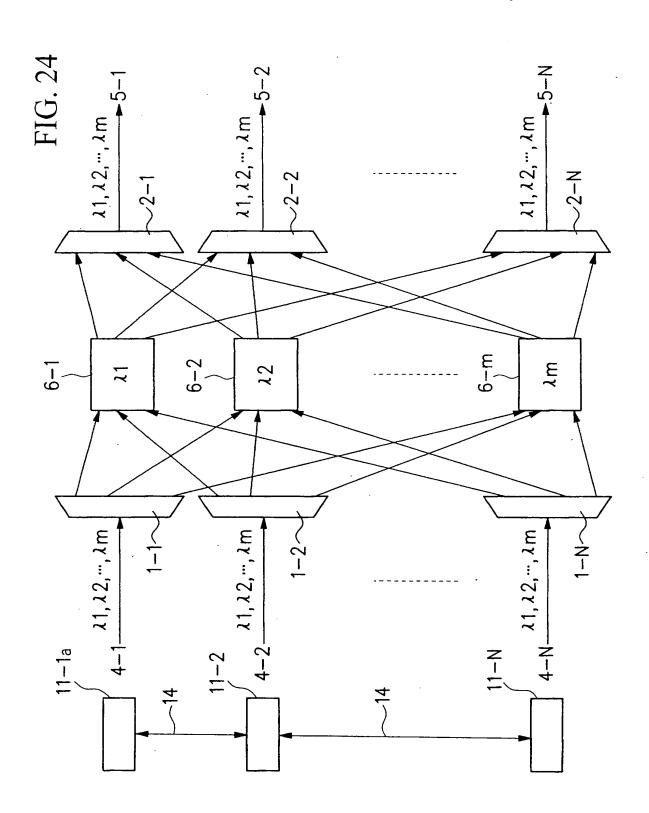
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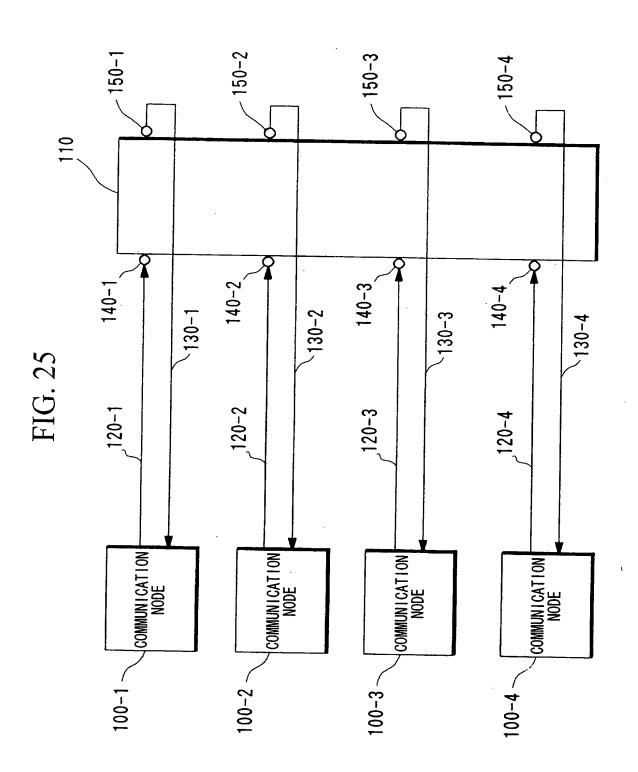
AND DEVICE FOR OPTICAL CROSS CONNECT DEVICE Inventor(s): Osamu MORIWAKI, et al Atty. Ref.: 5259-046/NP

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FIG. 26

OUTPUT PORT

INPUT PORT

	150-1	150-2	150-3	150-4
140-1	λ1	λ2	λ3	λ4
140-2	λ2	λ3	λ4	λ1
140-3	λ3	λ4	λ1	λ2
140-4	λ4	λ1	λ2	λ3

FIG. 27

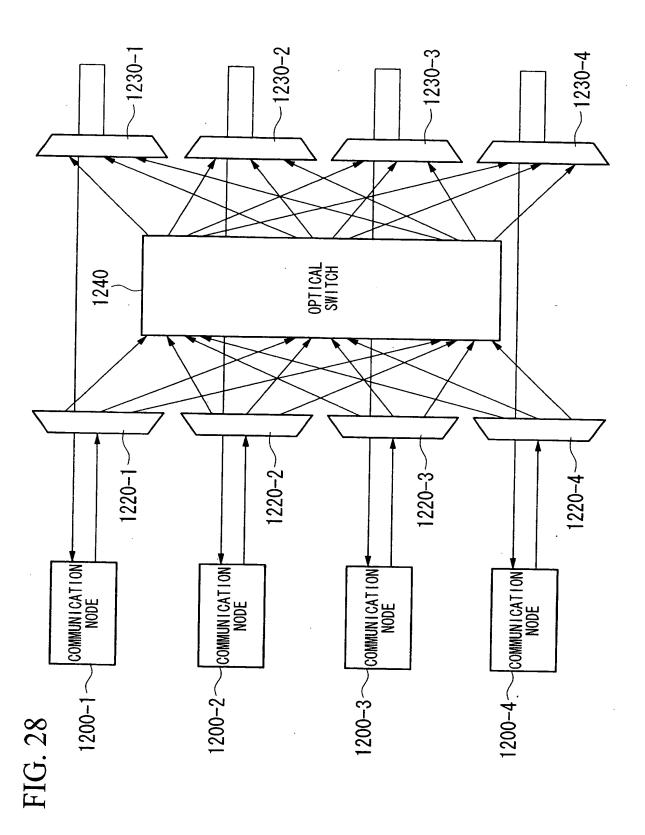
OUTPUT PORT

INPUT PORT

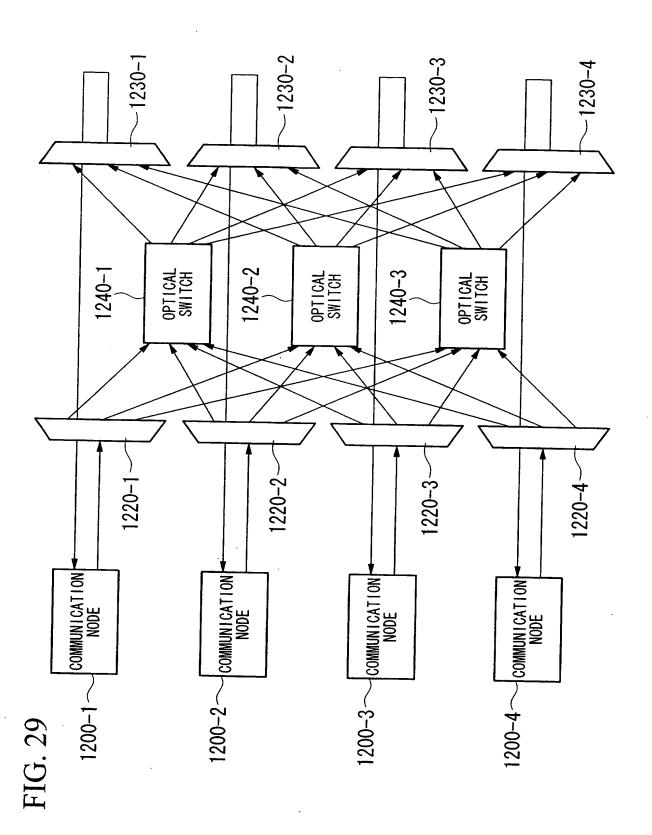
	150-1	150-2	150-3	150-4
140-1	λ1	λ2	λ3	λ4
140-2	λ2	λ3	λ4	λ5
140-3	λ3	λ4	λ5	λ6
140-4	λ4	λ5	λ6	λ7

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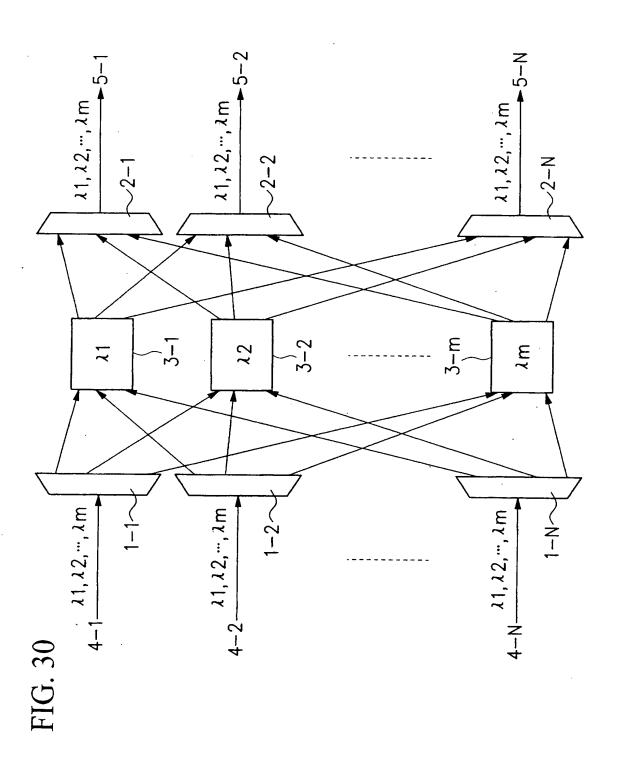
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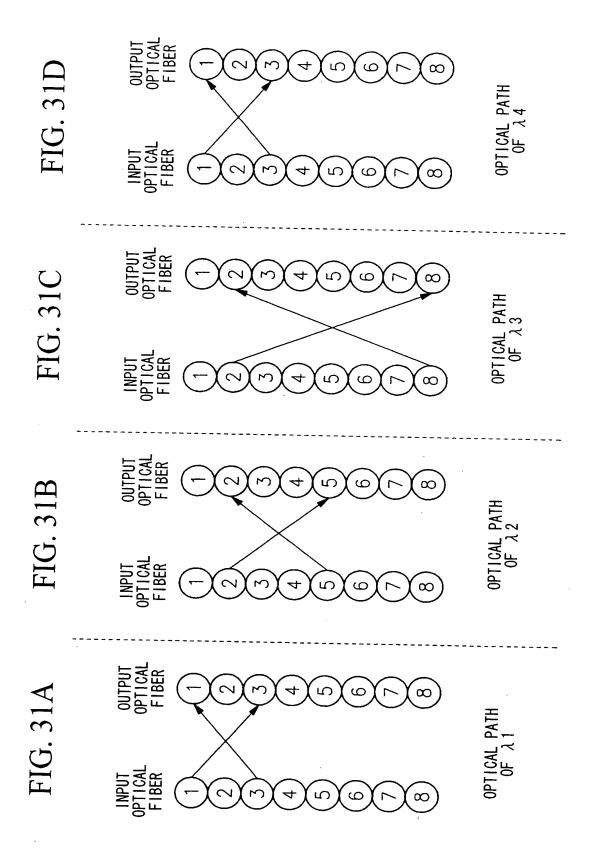
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